

REMARKS

No amendments have been made in this response. Accordingly, claims 1-4, 6-8 and 11-20 are currently pending in the application, of which claims 1, 8 and 15 are independent claims. In view of the following remarks, Applicant respectfully requests reconsideration and withdrawal of the pending rejections.

Rejections Under 35 U.S.C. §103

Claims 1-4, 6, 7 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 6,271,816 issued to Jeong, *et al.* ("Jeong") in view of U.S. Patent No. 6,670,953 issued to Ozawa ("Ozawa"). Claim 13 rejected under 35 U.S.C. §103(a) as being unpatentable over Jeong in view of Ozawa and U.S. Patent No. 6,304,254 to Johnson *et al.* ("Johnson"). Applicant respectfully traverses this rejection for at least the following reasons.

The Office Action asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the thin film transistors [] disposed between the data line sharing switch and the data driver as taught by Ozawa in the system of Jeong in order to simplify the design of the display circuit." However, this proposed modification would in fact both change principle of operation of the system of Jeong, as well as increase the size and complexity of the resulting circuit.

The system in Jeong functions by alternating a voltage between a positive and a negative polarity within a group of lines and between different groups of lines. More specifically, as illustrated in the flowchart of Figure 1b, the drivers in Jeong first drive the even column drivers 104 at a relatively positive voltage and drive the odd column drivers 105 at a relatively negative voltage. Col. 5, lines 25-30. Next, transistors 112 are turned on to electrically short the column drivers 104 and 105. Col. 5, lines 30-38. Then, the drivers in Jeong drive the even column drivers 104 at a relatively negative voltage and drive the odd column drivers 105 at a relatively positive voltage. Col. 5, lines 39-45. The transistors 112

are then turned on again to electrically short the column drivers 104 and 105. Col. 5, lines 45-53. Thus, the principle of operation of the system in Jeong already has detailed circuitry for controlling the signals applied to the columns.

Modifying the circuitry of Jeong with the control configuration described in Ozawa would change the principle of operation of Jeong, as Jeong already has a specific configuration for the data lines. There is no basis for the adding the switches of Ozawa to the circuit in Jeong, as the signals applied to the data lines in Jeong alternate between positive and negative relative values. “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims *prima facie* obvious.” MPEP §2143.01 (*citing In re Ratti*, 270 F.2d 810). Therefore, for at least this reason, the combination of Jeong and Ozawa is improper and does not establish a *prima facie* case of obviousness of claims 1-4, 6, 7 and 14.

Further, even assuming, *arguendo*, that the combination proposed by the Office Action did not change the principle of operation of the Jeong system, adding the switches of Ozawa to the circuit of Jeong would complicate, not simplify, the circuit. As Jeong already controls the signals in the data lines, adding the switches of Ozawa would result in additional components in the circuit. This would complicate the circuit functions, as well as require additional space. Thus, due to this added complication and space requirements, one of ordinary skill in the art would not be motivated to combine the teachings of Jeong and Ozawa. “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” MPEP §2143.01 (*citing In re Mills*, 916 F.2d 680). The prior art provides no motivation for this combination. Rather, the only teaching for this is found in applicant’s invention. Clearly, this is improper hindsight.

Furthermore, TFTs (T7a, T8a, T7b, T8b, ...) disclosed by Ozawa are used for detecting defects in the lines. Therefore, even though Ozawa is combined with Jeong, the resultant device does not disclose the invention claimed in this invention, which cite, *inter alia*, a sharing signal generator for outputting a sharing signal control signal....

As the Office Action has failed to provide any objective motivation in the prior art for combining these references, the combination is improper and fails to establish a *prima facie* case of obviousness of claims 1-4, 6, 7 and 14. Further, Johnson fails to remedy any of these deficiencies.

Accordingly, for at least these reasons, Applicant respectfully requests withdrawal of the rejection of claims 1-4, 6, 7 and 14 under 35 U.S.C. §103(a). Applicant respectfully submits that independent claim 1, and all the claims that depend therefrom are allowable.

In addition, claims 15-18 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 5,907,314 issued to Negishi *et al.* ("Negishi") in view of EP 0 315 365 to Wright ("Wright"). Claim 19 is rejected under 35 U.S.C. §103(a) as being unpatentable over Negishi in view of Wright and Johnson. Applicant respectfully traverses this rejection for at least the following reasons.

Claim 15 recites, among other things, "a first data line sharing switch having a plurality of first switching devices, each of which formed between the adjacent first data lines," and "a second data line sharing switch having a plurality of second switching devices, each of which formed between the adjacent second data lines." Neither Negishi nor Wright, either alone or in combination, discloses these elements of claim 15. The Office Action explicitly admits that Negishi does not disclose these elements, but asserts that these components are found in Wright. Applicant respectfully submits that the combination of Wright and Negishi does not disclose every element of the claim 15 and the claims that depend therefrom.

As illustrated in Figure 1, Wright has a first group of switching devices 17-19 that connects column electrodes 2, 3, 4 between adjacent sub-matrices. However, the second group of switching devices 20-22 also connects column electrodes 2, 3, 4 between adjacent sub-matrices. Thus, the first group of switching devices 17-19 and the second group of switching devices 20-22 connect to the same column electrodes. There is no distinction regarding which electrodes, or lines, to which the switching devices are connected, *e.g.*, first data lines and second data lines. Therefore, Wright does not teach a first data line sharing switch formed between the first data lines and a second data line sharing switch formed between the second data lines. Further, Negishi, Johnson, and the other cited prior art do not correct this deficiency.

Accordingly, for at least this reason, Applicant respectfully requests withdrawal of the rejection of claims 15-8 and 20 under 35 U.S.C. §103(a). Applicant respectfully submits that independent claim 15, and all the claims that depend therefrom are allowable.

Allowable Subject Matter

Applicant appreciates the indication that claims 8, 11 and 12 contain allowable subject matter.

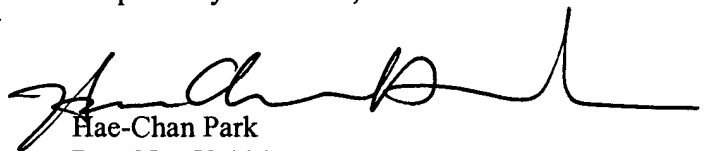
CONCLUSION

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance. Applicant respectfully requests reconsideration of the rejection and that the claims be passed to issuance.

Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,


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